

CLAIMS

- 1) A method for making a monolithic reinforced concrete portion of a building comprising two vertical facing walls having a common wall length, the walls spaced apart by a selected intramural spacing, the method comprising the sequentially executed steps of:
 - a) erecting two flanged wall members, each of the two flanged wall members comprising a respective vertical wall portion having a horizontal width substantially equal to the wall length and having at least one horizontal flange portion extending outward therefrom by a selected horizontal length ranging between 10% and 25% of the selected intramural spacing, the wall members erected in a parallel facing relationship so that the two flange portions extend toward each other, each horizontal flange portion comprising a respective rabbeted end portion distal from its associated wall portion, each flanged wall member further having a respective at least one reinforcing member at least partly embedded therein, each reinforcing member extending along both the vertical wall portion and the horizontal flange portion of the respective wall member, each reinforcing member extending away from its associated vertical wall portion by more than the selected horizontal length so that a respective end of each of the reinforcing members distal from the associated wall portion extends outwardly from the respective rabbeted flange end portion;
 - b) supporting a form plate in a sealing relationship against a lower surface of each of the rabbeted end portions of the two horizontal flange portions by supporting means attached to both of the at least two wall members;
 - c) pouring concrete onto the form plate to form a slab linking the two wall members so as to make the monolithic reinforced concrete portion of the building.
- 2) The method of claim 1 wherein the supporting means comprises a plurality of bolts, each of the bolts inserted through a respective throughhole in one of the flanges.
- 3). The method of claim 1 wherein the supporting means comprises a truss disposed beneath the form plate, the truss having two ends, each of the two ends of the truss coupled to a respective

one of the two wall portions by removable coupling means extending into a throughhole in the respective one of the two wall portions.

4) The method of claim 1 wherein at least one of the wall members comprises a precast reinforced concrete member.

5) The method of claim 1 wherein at least one of the wall members is erected by being cast in situ.

6) The method of claim 1 wherein at least one of the wall members comprises an insulating body disposed within the respective vertical portion thereof.

7) The method of Claim 1 wherein the slab comprises a portion of a ceiling of a first storey of the building and a portion of a floor of a second storey of the building and wherein the respective wall portion of each of the wall members extends both above and below the slab.

8) A method for making a monolithic reinforced concrete portion of a building enclosing a generally rectangular room having a selected floor-to-ceiling height and first and second selected wall widths, each of which is greater than the floor-to-ceiling height, the method comprising the sequentially executed steps of:

a) erecting at least four flanged wall members, each comprising at least one respective vertical wall portion and at least one respective horizontal flange portion, the wall members erected in a parallel facing arrangement so that a respective vertical wall portion of each wall member is parallel to the wall portion of one of the other three wall members and is spaced apart therefrom by one of the first and second wall widths, and so that a respective horizontal flange portion associated with the each of the wall members extends outwardly from the respective wall portion by less than 25% of the one of the first and second wall widths, thereby defining a generally rectangular void bounded by the four horizontal flange portions;

b) supporting a form plate in a sealing relationship against a lower surface of each of the four horizontal flange portions so as to bridge the void;

c) pouring concrete onto the form plate to form a slab linking the four wall members, the slab supported in two dimensions by all four wall members, whereby the strength required for each

of the wall members is less than it would be had the slab been supported by only two of the members.

9) The method of claim 8 wherein a portion of the slab is precast and wherein the step of pouring concrete to link the wall members comprises grouting the precast portion of the slab to the flange portions of the four wall members.

10) The method of Claim 8 wherein the slab comprises a portion of a ceiling of a first storey of the building and a portion of a floor of a second storey of the building and wherein the respective wall portion of each of the wall members extends both above and below the slab.

11) The method of Claim 8 wherein at least one of the wall members is erected by being cast in situ.

12) The method of Claim 8 wherein at least six pre-cast wall members are erected so that two pairs of juxtaposed wall members extend along the first wall width in the parallel facing relationship and so that the at least two remaining wall members extend along the second wall width in the parallel facing relationship, the method further comprising a step after step (a) and before step (b) of grouting each of the wall members in the juxtaposed pairs thereof to that other one of the wall members with which it is juxtaposed.

13) A method of making a monolithic concrete corner portion of a building, the corner portion comprising at least one horizontally extensive slab portion, the method comprising the steps of:

a) providing at least two precast flanged wall members comprising respective vertical wall portions having two respective vertical edges, each of the wall members comprising at least one respective horizontal flange extending away from the respective wall portion by a respective selected flange width, each of the flanges having at least one beveled end adjacent one of the edges of the respective wall member

b) juxtaposing two of the at least two wall members so that the respective wall portions are mutually perpendicular and so that respective beveled ends of the respective flanges are at a common horizontal level and are adjacent each other;

c) emplacing unset concrete between the wall portions and the adjacent flange portions of the two juxtaposed wall members and allowing the concrete to set so as to form the corner portion of the building.

14) The method of Claim 13 further comprising the steps of

d) juxtaposing a third and a fourth wall member with the first and second wall members so as to form an enclosed portion of the building having four flange portions extending into the enclosed portion at the common horizontal level and having a generally rectangular void bounded by ends of the respective flanges distal from their respective associated wall portions;

e) supporting a form plate in a sealing relationship against a lower surface of each of the four horizontal flange portions so as to bridge the void;

f) pouring concrete onto the form plate to form a slab linking the four wall members, the floor slab supported in two dimensions by all four wall members, whereby the strength required for each of the wall members is less than it would be had the floor slab been supported by only two of the members.

15) The method of claim 13 wherein in one of steps e) and f) the concrete is poured to connect the respective flanges by means of precast slab.

16) The method of claim 13 wherein at least one of the floor and ceiling slabs comprises a slab cast in situ onto a form plate supported against the respective flanges.